

ABSTRACT OF THE DISCLOSURE

A cold forging apparatus for forming complex shapes at a single station includes a first multiple function punch assembly having an inner and outer punch. A third punch or a second multiple function punch assembly is provided in a confronting relationship with the first multiple function punch assembly. A conveyor conveys a metal work piece from a supply source to a loading/unloading area between the first multiple function punch assembly and the third punch or second multiple function punch assembly. The conveyor includes a pivot assembly, a moveable J-shaped robot arm having an end effector fixed to one end thereof to rotate about the pivot assembly. A servo actuator and crank arm connected to one end thereof rotate the robot arm and end effector to convey a metal work piece from a supply source to a loading/unloading position and for conveying a forged product from the loading/unloading position to a storage area.

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